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Why Cell-Phone Health Concerns Persist

Despite years of study, questions continue to be raised whether mobile phones can contribute to health problems

by [Jay Yarow](#)

Why can't we get a definitive answer about cell phones and health?

Mobile phones have been around for over 20 years, and they're now used by more than 3 billion people. Yet questions linger over whether mobile phones can contribute to health problems, including cancer. The most recent alarm came from the director of the University of Pittsburgh Cancer Institute, who warned school employees to limit their cell-phone use based on early unpublished data from scientific studies. "Although the evidence is still controversial, I am convinced that there are sufficient data to warrant issuing an advisory to share some precautionary advice on cell-phone use," wrote Ronald Herberman in a memo to 3,000 faculty and staff in late July.

To be clear, many studies have presented evidence that cell phones are safe. The wireless industry, from Nokia ([NOK](#)) and Motorola ([MOT](#)) to [Verizon Wireless](#) and AT&T ([T](#)), says there is no cause for concern. "The overwhelming majority of studies that have been published in scientific journals around the globe show that wireless phones do not pose a health risk," said the Cellular Telecommunications & Internet Assn., the wireless industry's trade group, in a statement following Herberman's memo.

NOT AROUND LONG ENOUGH

But definitive scientific proof is tough to come by. One key reason is that people use their cell phones, by definition, in ways that make them hard to study. We make phone calls on the go, from the grocery store or in our cars. That makes it difficult to reap the precise details important to scientific study, like how long we used the phone or which side of the head it was pressed against. The topic also falls between areas of scientific study, with doctors expert in the human body on one side and engineers well versed in radio technology on the other. Finally, time is an issue. While cell phones have been around a while, they've been mainstream products for only 10 years or so, and it may take much longer than that for adverse effects to show up. "The most difficult thing to resolve is whether there is an effect with long-term mobile-phone use," says Rodney Croft, executive director at the Australian Center for Radio Frequency Bioeffects Research.

Consumers and scientists had hoped that an ambitious research project, due out later this year, to study the issue would overcome these limitations. The effort, called Interphone, is a decade-long study involving 13 countries. "It's time for the Interphone to come out. It's a public health issue," says Louis Slesin, author of *Microwave News*, a newsletter that tracks non-ionizing radiation research—the type cell phones emit.

Still, the slices of Interphone research that have been published recently (while the final report is being prepared) suggest that it won't be the definitive word, either. Interphone's research coordinator, Dr. Elisabeth Cardis, warns that "the interpretation of the data is not very clear." Slesin says that "Interphone will not be the last word. It is more a progress report."

STUDYING TUMOR RISK

In February of this year, Japanese scientists participating in Interphone published partial findings, based on their research, in the *British Journal of Cancer*. They "observed no increase in overall risk of [tumors] in relation to regular mobile-phone use among our Japanese subjects."

While some experts hailed the research as providing evidence that mobile phones do not cause cancer, others dispute the conclusion. Bruce Hocking, an Australian doctor who specializes in occupational and environmental medicine, argues that the Japanese study had key flaws. In a letter to the *Journal*, Hocking said the Japanese gathered data that relied on people's ability to remember "cumulative length of use and cumulative call time," which "may be associated with random errors, leading to overestimation or underestimation of true usage." This is referred to as recall bias.

"It is hard for people to recall, accurately, their phone use over a 10-year period. Researchers want mobile-use records, but they are challenged by privacy rules," says Hocking. "The best way to research it is, prospectively, off billing data."

CLOSED RESEARCH LABS

But new studies on health and cell phones are tough to get going. In the U.S., most research on the topic was discontinued at the beginning of the decade, largely because industry groups and government considered the questions resolved and haven't been willing to finance new studies. "The U.S. had been the leading country in the research on radio-frequency radiation from the 1960s to the 1990s," says Dr. Henry Lai, a professor at the University of Washington who has studied research funding of the issue. Over time, however, "most labs in the U.S. that did research on electromagnetic fields closed down."

But scientists are concerned that cutting off studies could be a mistake. "It was 15, 20 years after people began smoking that we saw concerns associated with it," says Dr. Michael Kelsh, principle scientist and epidemiologist for Exponent, a scientific consulting firm. "Down the road, the same could happen with phones." He says that studying cell-phone usage requires time, because the latency period for brain tumors can be 10 to 15 years.

Dr. Michael Thun, vice-president of epidemiology and surveillance research for the American Cancer Society agrees that time is a concern, particularly with children using cell phones. "We haven't had long-term exposure with kids. There can always be surprises; we cannot say with 100% certainty that it is safe. It is just not clear yet."

Despite the ongoing concerns, Slesin cautions that people need not live in fear. "People should wear wired earpieces," he says. "I don't think people should stop using cell phones. I think people need to be aware that there is a risk."

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